REMARKS / ARGUMENTS

A. Summary of the Amendments

The present application now contains 17 claims.

The specification has been amended in order to correct minor informalities detected by the Applicant upon review of the present application.

Claims 1-3, 14 and 16 have been cancelled.

Claims 4-10, 12-13, 15 and 17-22 have amended in order to clarify the subject matter being claimed in the application.

The Applicant respectfully submits that support for the above-indicated amendments exists in the specification as originally filed and that no new matter has been added to the application. In particular, support for the amendments to independent claims 4, 8-9 and 13 can be found, *inter alia*, on page 6, lines 13-14 and page 12, lines 15 to page 13, line 4.

B. Summary of Objections, Rejections and Reply

1) Rejection of claims 1-3 and 14-22 under 35 USC 101

In the Office Action, the Examiner has rejected claims 1-3 and 14-22 under 35 USC 101 as lacking patentable utility. More specifically, the Examiner asserts that independent claims 1 and 14 teach a signal without structure that fails to provide a tangible process machine, manufacture, or composition of matter. Claims 2-3 and 15-22 depend either directly or indirectly on claims 1 and 14 and further limit the

rejected independent claims. The Examiner has therefore rejected claims 15-22 under the same reasoning as claims 1 and 14.

Applicant has cancelled claims 1-3, 14 and 16 such that the Examiner's rejection with regard to claims 1-3, 14 and 16 is moot.

The claim dependencies of claims 15 and 17-22 have been amended such that the claims no longer depend on former claim 14. Rather, claims 15 and 17-22 have been amended to depend either directly or indirectly on claim 4, which is directed to "An apparatus". Thus, Applicant respectfully submits that claims 15 and 17-22 constitute patentable subject matter and requests that the Examiner withdraw his rejection under 35 USC 101.

2) Rejection of claims 1-3 under 35 USC 112

In the Office Action, the Examiner has rejected claims 1-3 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has cancelled claims 1-3 such that the Examiner's rejection with regard to claims 1-3 is moot.

3) Rejection of claims 1-4, 7-9, 12-14 and 17-21 under 35 USC 102

In the Office Action, the Examiner has rejected claims 1-3 under 35 USC 102(b) as being anticipated by Bruce, Jr. et al. U.S. Patent No. 5,517,637 (hereinafter referred to as "Bruce"). Applicant has cancelled claims 1-3 such that the Examiner's rejection with regard to claims 1-3 is moot.

The Examiner has also rejected claims 4, 7-9, 12-14 and 17-21 under 35 USC 102(e) as being anticipated by Fujisawa et al. U.S. Patent No. 6,657,967 (hereinafter referred to as "Fujisawa"). Applicant has cancelled claim 14 such that the

Examiner's rejection with regard to claim 14 is moot. Furthermore, Applicant respectfully traverses this rejection and submits that claims 4, 7-9, 12-13 and 17-21 are in allowable form for the reasons set forth below.

Independent claim 4

The Examiner's attention is directed to the following emphasized limitations of claim 4:

> "An apparatus [...] , comprising:
>
> [...]
>
> ii) generating a coded signal comprising the payload data received in the input signal and the forward error correction data generated in i);
>
> c) a transmission link for transmitting the coded signal between the two ICs;
>
> d) **a second processing unit interfacing with said transmission link, said second processing unit being operative for processing the coded signal by extracting the payload data from the coded signal;**
>
> e) **an output for releasing the payload data extracted by said second processing unit.**"

Applicant respectfully submits that Fujisawa does not disclose, teach or suggest the above-emphasized limitations of claim 4. Specifically, the cited reference neither teaches nor suggests (1) "a second processing unit interfacing with said transmission link, said second processing unit being operative for processing the coded signal by extracting the payload data from the coded signal" where the transmission link is used to transmit a coded signal comprising payload data and forward error correction data between two ICs; and (2) "an output for releasing the payload data extracted by said second processing unit".

Fujisawa describes a coding apparatus for generating Forward Error Correction (FEC) code intended for transmission on an optical communications channel (see

Figure 1). As shown in Figure 1, the FEC encoded data is multiplexed, converted from electrical to optical form and transmitted on the optical communication channel and is never shown to be decoded. In fact, although Fujisawa describes coding the data signal, the cited reference is completely silent on decoding the FEC encoded data. In particular, Fujisawa does not address the possibility of decoding the FEC encoded data while the data is still in the form of an electrical signal. Rather, the data remains FEC encoded while being transmitted over the optical communications channel and, as such, Fujisawa cannot possibly teach or suggest a second processing unit interfacing with the transmission link and extracting the payload data from the coded signal, where the transmission link is used to transmit a coded signal comprising payload data and forward error correction data between two ICs. Moreover, it follows that Fujisawa is silent as to any teaching or suggestion of releasing the payload data extracted by the second processing unit.

In light of the foregoing, Applicant respectfully submits that Fujisawa neither explicitly nor implicitly teaches all of the limitations of independent claim 4, such that the criteria for satisfying a rejection under 35 USC 102 have not been met[1]. Accordingly, Applicant respectfully submits that the subject matter of claim 4 is in allowable form and, therefore, the Examiner is respectfully requested to withdraw his rejection of claim 4.

Dependent claim 7

Claim 7 depends directly on claim 4 and therefore includes all of the limitations of claim 4. Hence, for the same reasons as those set forth herein above in respect of claim 4, Applicant respectfully submits that claim 7 is in allowable form.

[1] According to MPEP §706.02, 8th ed., in order for the Examiner to cite a rejection under U.S.C. 102, "The reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present."

Independent claim 8

The Examiner's attention is directed to the following emphasized limitations of claim 8:

> "An apparatus [...] , comprising:
>
> > [...] the first portion including payload data, the second portion including forward error correction data derived from the data elements in the first portion;
> >
> > c) a transmission link for transmitting the output signal between the two ICs;
> >
> > d) **a second processing unit interfacing with said transmission link, said second processing unit being operative for processing the coded signal by extracting the payload data from the coded signal;**
> >
> > e) **an output for releasing the payload data extracted by said second processing unit.**"

Claim 8 contains language similar to that of claim 4. Thus, for the same reasons set forth herein above in respect to claim 4, it is Applicant's respectful submission that independent claim 8 comprises at least two limitations missing from Fujisawa, namely "a second processing unit interfacing with said transmission link, said second processing unit being operative for processing the coded signal by extracting the payload data from the coded signal" where the transmission link is used to transmit a coded signal comprising payload data and forward error correction data between two ICs, and "an output for releasing the payload data extracted by said second processing unit".

In light of the foregoing, Applicant respectfully submits that Fujisawa does not teach or suggest all of the limitations of independent claim 8, either explicitly or implicitly, such that the criteria for satisfying a rejection under 35 USC 102 have not been met. Accordingly, Applicant respectfully submits that the subject matter of claim 8 is in allowable form and, therefore, the Examiner is respectfully requested to withdraw his rejection of claim 8.

Independent claim 9

The Examiner's attention is directed to the following emphasized limitations of claim 9:

> "A method [...] , comprising:
>
> [...]
>
> c) generating a coded signal comprising the payload data received in the input signal and the forward error correction data;
>
> d) transmitting the coded signal between the two ICs on a transmission link;
>
> e) **interfacing with the transmission link in order to process the coded signal by extracting the payload data from the coded signal;**
>
> f) **releasing the payload data extracted from the coded signal.**"

Claim 9 contains language similar to that of claim 4. Thus, for the same reasons set forth herein above in respect to claim 4, it is Applicant's respectful submission that independent claim 9 comprises at least two limitations missing from Fujisawa, namely "interfacing with the transmission link in order to process the coded signal by extracting the payload data from the coded signal" where the transmission link is used to transmit a coded signal comprising payload data and forward error correction data between two ICs, and "releasing the payload data extracted from the coded signal".

In light of the foregoing, Applicant respectfully submits that Fujisawa does not teach or suggest all of the limitations of independent claim 9, either explicitly or implicitly, such that the criteria for satisfying a rejection under 35 USC 102 have not been met. Accordingly, Applicant respectfully submits that the subject matter of claim 9 is in allowable form and, therefore, the Examiner is respectfully requested to withdraw his rejection of claim 9.

Dependent claim 12

Claim 12 depends directly on claim 9 and therefore includes all of the limitations of claim 9. Hence, for the same reasons as those set forth herein above in respect of claim 9, Applicant respectfully submits that claim 12 is in allowable form.

Independent claim 13

The Examiner's attention is directed to the following emphasized limitations of claim 13:

> "A method [...] , comprising:
>
> > [...] the first portion including payload data, the second portion including forward error correction data derived from the data elements in the first portion;
> >
> > [...]
> >
> > c) transmitting the coded signal between the two ICs on a transmission link;
> >
> > d) **interfacing with the transmission link in order to process the coded signal by extracting the payload data from the coded signal;**
> >
> > e) **releasing the payload data extracted from the coded signal.**"

Claim 13 contains language similar to that of claim 4. Thus, for the same reasons set forth herein above in respect to claim 4, it is Applicant's respectful submission that independent claim 13 comprises at least two limitations missing from Fujisawa, namely "interfacing with the transmission link in order to process the coded signal by extracting the payload data from the coded signal" where the transmission link is used to transmit a coded signal comprising payload data and forward error correction data between two ICs, and "releasing the payload data extracted from the coded signal".

In light of the foregoing, the Applicant respectfully submits that Fujisawa does not teach or suggest all of the limitations of independent claim 13, either explicitly or implicitly, such that the criteria for satisfying a rejection under 35 USC 102 have not been met. Accordingly, Applicant respectfully submits that the subject matter of claim 13 is in allowable form and, therefore, the Examiner is respectfully requested to withdraw his rejection of claim 13.

Dependent claims 17-21

Claims 17-21 depend either directly or indirectly on claim 4 and therefore include all of the limitations of claim 4. Hence, for the same reasons as those set forth herein above in respect of claim 4, Applicant respectfully submits that claims 17-21 are in allowable form.

4) Rejection of claims 5-6, 10-11, 15-16 and 22 under 35 USC 103

In the Office Action, the Examiner has rejected claims 5, 10 and 15-16 under 35 USC 103(a) as being unpatentable over Fujisawa in view of Bruce. Applicant has cancelled claim 16 such that the Examiner's rejection with regard to claim 16 is moot. Furthermore, as set forth herein below, Applicant respectfully traverses this rejection and submits that claims 5, 10 and 15 are in allowable form.

In the Office Action, the Examiner has also rejected claims 6, 11 and 22 under 35 USC 103(a) as being unpatentable over Fujisawa in view of Wolf U.S. Patent No. 6,061,825 (hereinafter referred to as "Wolf"). As set forth herein below, Applicant respectfully traverses this rejection and submits that claims 6, 11 and 22 are in allowable form.

Dependent Claims 5-6, 15 and 22

Claims 5-6, 15 and 22 depend directly on claim 4 and therefore include all of the limitations of claim 4. As already set forth above with respect to claim 4, Fujisawa

does not teach or suggest the limitations "a second processing unit interfacing with said transmission link, said second processing unit being operative for processing the coded signal by extracting the payload data from the coded signal" where the transmission link is used to transmit a coded signal comprising payload data and forward error correction data between two ICs, and "an output for releasing the payload data extracted by said second processing unit".

Bruce describes a method for testing a test architecture within a circuit. Testing of an IC may result in the identification of design errors and definition errors (see column 6, lines 10-11). However, the use of FEC coding and decoding is not taught anywhere in Bruce. Thus, Applicant respectfully submits that Bruce does not teach or suggest the above limitations of claim 4, upon which claims 5 and 15 depend.

Wolf describes a method for detecting bit errors that have occurred in ATM useful cells on an ATM transmission link (see column 1, lines 48-50) by monitoring OAM cells. BCH or CCF encoding is used for detecting and correcting bit errors in the OAM cells being transmitted (see column 2, lines 5-14). However, the ATM transmission link is not shown to be linking one IC to another IC. Thus, Applicant respectfully submits that Wolf does not teach or suggest the above limitations of claim 4, upon which claims 6 and 22 depend.

In light of the above and for the same reasons as those set forth herein above in respect of claim 4, it is respectfully submitted that at least two limitations of claim 4 are neither taught nor suggested by the cited art, whether taken severally or in combination. Therefore, Applicant respectfully submits that there is at least one criterion, required for establishing a *prima facie* case of obviousness in accordance with MPEP 706.02(j), which is in this case not satisfied[2].

[2] For the Examiner to establish a *prima facie* case of obviousness, three criteria must be considered: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art references must teach or suggest all of the claim limitations. MPEP §§ 706.02(j), 2142 (8th ed.).

Claims 5-6, 15 and 22 depend directly on claim 4. Hence, for the same reasons as those set forth herein above in respect of claim 4, Applicant respectfully submits that claims 5-6, 15 and 22 are in allowable form. The Examiner is therefore respectfully requested to withdraw his rejection of claims 5-6, 15 and 22.

Dependent Claims 10-11

Claims 10-11 depend directly on claim 9 and therefore includes all of the limitations of claim 9. As already set forth above with respect to claim 9, Fujisawa does not teach or suggest the limitations "interfacing with the transmission link in order to process the coded signal by extracting the payload data from the coded signal;" where the transmission link is used to transmit a coded signal comprising payload data and forward error correction data between two ICs, and "releasing the payload data extracted from the coded signal".

Bruce describes a method for testing a test architecture within a circuit. Testing of an IC may result in the identification of design errors and definition errors (see column 6, lines 10-11). However, the use of FEC coding and decoding is not taught anywhere in Bruce. Thus, Applicant respectfully submits that Bruce does not teach or suggest the above limitations of claim 9, upon which claim 10 depends.

Wolf describes a method for detecting bit errors that have occurred in ATM useful cells on an ATM transmission link (see column 1, lines 48-50) by monitoring OAM cells. BCH or CCF encoding is used for detecting and correcting bit errors in the OAM cells being transmitted (see column 2, lines 5-14). However, the ATM transmission link is not shown to be linking one IC to another IC. Thus, Applicant respectfully submits that Wolf does not teach or suggest the above limitations of claim 9, upon which claim 11 depends.

In light of the above and for the same reasons as those set forth herein above in respect of claim 9, it is respectfully submitted that at least two limitations of claim 9 are neither taught nor suggested by the cited art, whether taken severally or in

combination. Therefore, Applicant respectfully submits that there is at least one criterion, required for establishing a *prima facie* case of obviousness in accordance with MPEP 706.02(j), which is in this case not satisfied.

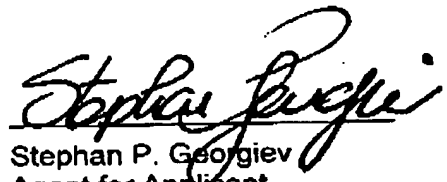
Claims 10-11 depend directly on claim 9. Hence, in light of the above and for the same reasons as those set forth herein above in respect of claim 9, Applicant respectfully submits that claims 10-11 are in allowable form. The Examiner is therefore respectfully requested to withdraw his rejection of claims 10-11.

CONCLUSION

In view of the foregoing, Applicant is of the view that claims 4-13, 15, 17-22 are in allowable form. Favorable reconsideration is requested. Early allowance of the Application is earnestly solicited.

If the claims of the application are not considered to be in full condition for allowance, for any reason, Applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims pursuant to MPEP 707.07(j) or in making constructive suggestions pursuant to MPEP 706.03 so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,



Stephan P. Georgiev
Agent for Applicant
Reg. No. 37,563

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SMART & BIGGAR
1000 de la Gauchetière St. West
Suite 3400
Montreal, Quebec H3B 4W5
Canada
Tel.: (514) 954-1500